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TO : The Files

DATE: 29 November 1957

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JUST 22	NEXT REV 2410	AUTH: MR TS-2

SUBJECT: Trip Report RD-76, Task Order F, Miniature Data Recorder

1. [ ] was visited on 20 November 1957 by the writer and [ ] for the purpose of monitoring progress on the subject contract. The project was discussed with [ ]

2. [ ] reported that the sub-contractor, [ ] has found a magnetic recording head of which would provide the necessary 10 kc response on the data channels at the slow, standard speed of 1 7/8 ips. No details were available on the construction of the head or the source of supply. After considerable research and test of AC motors, it appears that [ ] is now eyeing the prospect of employing a miniature DC motor. The DC motor would supply a higher torque and require less space than the AC motors tested. [ ] has been advised of the noise and speed regulation with temperature problems normally associated with this motive source. The tape reel arrangement has not been decided, however, the system of overlapping reels appears most workable. There is some question whether such a reel mounting arrangement can be accomplished using identically shaped supply and take-up reels as called for in the specification. [ ] mentioned that he would investigate the feasibility of designing identical reels further before requesting a change in specifications. The contractor also inquired as to whether there would be any objection to making all connections through one plug at the front of the unit with all inter-connecting cables diverging at the back of the plug. The only immediate objection to this was the possibility of increasing noise, since audio frequencies plus 1kc reference tone signals would be adjacent to data channel signal leads. It is possible, however, that proper shielding would negate such interference. [ ] informed that inter-connecting cables would not be required as deliverable items.

3. [ ], who joined this meeting quite late, asked for clarification of what pulse information was expected from the recorded data. He stated that from a prior meeting he had the opinion that the mere presence of a pulse and its repetition rate would be satisfactory. [ ] felt that this would be the minimum information acceptable, however, it should be the goal of the project to preserve as much pulse width and amplitude information as possible. The writer informed that the latter opinion was correct.

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